

|                               |                 |              |
|-------------------------------|-----------------|--------------|
| <b>Notice of Allowability</b> | Application No. | Applicant(s) |
|                               | 09/695,323      | KUBO ET AL.  |
|                               | Examiner        | Art Unit     |
|                               | Patrick J. Lee  | 2878         |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to Amendment filed 8/27/2003.
2.  The allowed claim(s) is/are 1-11.
3.  The drawings filed on 25 October 2000 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

5.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a)  The translation of the foreign language provisional application has been received.
6.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8.  CORRECTED DRAWINGS must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No. \_\_\_\_\_.
  - (b)  including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.**

9.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

|  |  |
|--|--|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                 |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>0903</u> . |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____.              | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment                         |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance        |
|  | 9 <input type="checkbox"/> Other _____.  |

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Whitham on September 25<sup>th</sup>, 2003.

The application has been amended as follows:

Claim 1 should be amended to read:

1. A sensor comprising:

a cold-cathode-tube light source for illuminating a surface of a document;

a photoelectric conversion element for receiving light reflected from the surface of said document and producing an image signal;

a temperature detection circuit for detecting an ambient temperature at a location remote to the cold-cathode-tube light source; and

a control circuit for controlling a drive signal according to detected ambient temperature, said drive signal causing said cold-cathode-tube light source to illuminate when said document is read.

Claim 6 should be amended to read:

6. A scanner comprising:

a cold-cathode-tube light source for illuminating a surface of a document;

a photoelectric conversion element for receiving light reflected from the surface of said document and producing an image signal;

an impedance detection circuit for detecting an impedance between electrodes of said cold-cathode-tube light source; and

a control circuit for controlling a drive signal according to detected impedance information, said drive signal causing said cold-cathode-tube light source to illuminate when said document is read.

Claim 7 should be amended to read:

7. A method of controlling a drive signal for causing a cold-cathode-tube light source to illuminate comprising the steps:

detecting an ambient temperature at a location away from the cold-cathode-tube light source and

controlling a drive signal based on said detected ambient temperature, said drive signal causing said cold-cathode-tube light source to illuminate when said document is read.

2. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: On figure 7, "IMPEDANCE DETECTION CIRCUIT" should read "IMPEDANCE DETECTION CIRCUIT". In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

#### **REASONS FOR ALLOWANCE**

3. Claims 1-11 are allowable over the prior art.
4. The following is an examiner's statement of reasons for allowance:

With respect to claims 1 & 7, Yamamoto et al disclose a control apparatus comprising inverter (14), power source (13), control circuit (18), cold-cathode fluorescent lamp (11), CCD (12), and temperature sensor (17). However, Yamamoto et al disclose the temperature sensor (17) to be disposed at a location in the vicinity of the lamp (11) as stated in column 4, lines 26-31. The disposition of the temperature sensor in order to avoid the temperature influence of the light source remote to the light source is not taught nor suggested. As a result, independent claims 1 & 7 and dependent claims 2-5 & 8-11 are allowable over the prior art.

With respect to claim 6, Yamamoto et al do not disclose nor suggest the use an impedance detection circuit to control the light source. It would not have been obvious to one of ordinary skill to modify the teachings of Yamamoto et al accordingly.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nabeshima et al 6,330,083 disclose an image reading device utilizing a temperature sensor to adjust the illumination.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Lee whose telephone number is (703) 305-

3871. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Patrick J. Lee  
Examiner  
Art Unit 2878

PJL



DAVID PORTA  
SUPERVISORY PATENT EXAMINER  
TECH 4100, BOX CENTER 2800